WHAT IS CLAIMED IS:

1. A method of transferring a substrate, using an apparatus comprising:

a cassette for receiving plural substrates in air;

an atmospheric transferring device for transferring, one by one, said substrates;

a vacuum transferring chamber having a vacuum transferring means;

plural vacuum processing chambers for processing, one by one, said substrates; and

a device having a first lock chamber in which said substrates are carried in and carried out, one by one, between said atmospheric transferring device and said vacuum transferring chamber and a second lock chamber in which said substrates are carried in and carried out, one by one, between said atmospheric transferring device and said vacuum transferring chamber,

wherein the method comprises the steps of:

taking out, one by one, said substrates from said cassette by said atmospheric transferring device;

carrying in a substrate taken out from the cassette, to one of said first and second lock chambers in air;

closing off said one of said first and second lock chambers, from said atmospheric transferring device;

evacuating said one of said first and second lock chambers;

transferring said substrate to any one of said plural vacuum processing chambers from said one of said first and second lock chambers in a vacuum, through said vacuum transferring chamber;

processing said substrate in said one of said plural vacuum processing chambers;

transferring said substrate, which has subjected to processing, to one of said first and second lock chambers in the vacuum through said vacuum transferring chamber;

closing said one of said first and second lock chambers, to which the substrate is transferred after the processing, from said vacuum transferring chamber and, after that, opening the one of the first and second lock chambers, having the substrate therein, to air; and

taking out said substrate in said one of said first and second lock chambers, to which the substrate is transferred after the processing, by said atmospheric transferring device and receiving said substrate in said cassette.

2. A method of transferring a substrate according to claim 1, wherein an opening and closing at an air side and a vacuum side of said first lock chamber and an opening an closing at an air side and a vacuum side of said second lock chamber, are controlled independently, respectively.

3. A method of transferring a substrate according to claim 2, wherein said substrate which has been subjected to

processing is returned to a cassette from which it originated.

4. A method of transferring a substrate according to claim 1, wherein said substrate which has been subjected to processing is returned to a cassette from which it originated.

5. A method of transferring a substrate according to claim 2, wherein after a processing of a substrate, the processed substrate is transferred through said vacuum transferring chamber and said substrate is processed in another vacuum processing chamber.

6. A method of transferring a substrate according to claim 5, wherein said one of said plural vacuum processing chambers, and said another vacuum processing chamber, perform different processing of the substrate.

7. A method of transferring a substrate according to claim 1, wherein said one of said plural vacuum processing chambers, and said another vacuum processing chamber, perform different processing of the substrate.

8. A method of transferring a substrate according to claim 1, wherein said one of said plural vacuum processing chambers, and said another vacuum processing chamber, perform different processing of the substrate.

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